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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/716,036	11/18/2003	Jin Wook Kim	U 014888-2	5560
7590	03/25/2005		EXAMINER	
Ladas & Parry 26 West 61st Street New York, NY 10023			LESLIE, MICHAEL S	
			ART UNIT	PAPER NUMBER
			3745	

DATE MAILED: 03/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/716,036

**Applicant(s)**

KIM, JIN WOOK

**Examiner**

Michael Leslie

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 November 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>6/18/04</u> . | 6) <input type="checkbox"/> Other: ____.  |

## DETAILED ACTION

### *Drawings*

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the “pilot pump” of claim 6 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Figures 1 and 2 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g).

The drawings are objected to because the variable displacement pumps of Figs. 1 and 3-6 do not have the “arrow” indicating variability, thus appearing to be fixed displacement.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Specification***

The abstract of the disclosure is objected to because it exceeds the limit of 150 words.

Correction is required. See MPEP § 608.01(b).

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 4, 5, and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by JP 07-317706.

JP 07-317706 discloses a circuit having a variable displacement hydraulic pump (10), an actuator (32) connected with the pump, a center bypass directional switching valve (60) between the pump and actuator, a pilot signal generating means downstream of the center bypass path, and a discharge amount adjusting valve (64) having an opening portion opened and closed based on a difference pressure between an upper stream side pressure (64a) and a down stream side pressure (50) of the supply path of the actuator and an elastic force of a valve spring (64b). Wherein the discharge amount adjusting valve includes a variable orifice (~60c) and is installed outside the spool of the center bypass directional switching valve, and the pilot signal generating means is a pressure generating apparatus (66) formed of an orifice and a low pressure relief valve controlling the pump displacement based on a negative system.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 6 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 07-317706 in view of Toyooka et al.

JP 07-317706 discloses a circuit as described above with respect to claim 1, including a pilot signal generating means. JP 07-317706 does not teach that the pilot signal generating means includes a pilot pump, remote control valve, and shuttle valve. Toyooka et al teaches a circuit for controlling a pump discharge amount having a pilot signal generating means including a pilot pump (7), a remote control valve (5) for controlling pilot pressure applied to the center bypass valve, and a shuttle valve (6) having an inlet portion connected with the center bypass valve and an outlet connected to the pump wherein the pump is controlled based on the positive discharge method. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of JP 07-317706 by replacing the pilot signal generating means with a pilot signal generating means including a pilot pump, remote control valve, and shuttle valve as taught by Toyooka et al for the purpose of controlling the pump discharge amount.

Claims 3, 7, and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 07-317706 or JP 07-317706 in view of Toyooka et al, respectively.

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JP 07-317706 and JP 07-317706 in view of Toyooka et al disclose a circuit as described above with respect to claims 3, 7, and 10, respectively, but do not explicitly teach that the discharge amount adjusting valve is installed in the interior of the spool of the center bypass valve.

Since applicant has not disclosed that having discharge amount adjusting valve installed in the spool of the center bypass valve solves any stated problem or is for any particular purpose above the fact that having the discharge amount adjusting valve installed in the center bypass valve provides an alternate configuration and it appears that the discharge amount adjusting valve of JP 07-317706 would perform equally well with the configuration as claimed by applicant, it would have been an obvious matter of design choice to modify the discharge amount adjusting valve by utilizing the configuration as claimed for the purpose of controlling the discharge amount of the pump.

#### ***Prior Art***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U.S. Patents 4420937, 5758499, 5791142, 5806312, and 5941155 each disclose circuits for controlling pump discharge amount.

#### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Leslie whose telephone number is (571) 272-4819. The examiner can normally be reached on M-F 8:00am - 4:30pm.


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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Look can be reached on (571) 272-4820. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ML

March 16, 2005

  
Michael Leslie  
Patent Examiner  
AU 3745

  
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SUPERVISORY PATENT EXAMINER  
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3/16/05